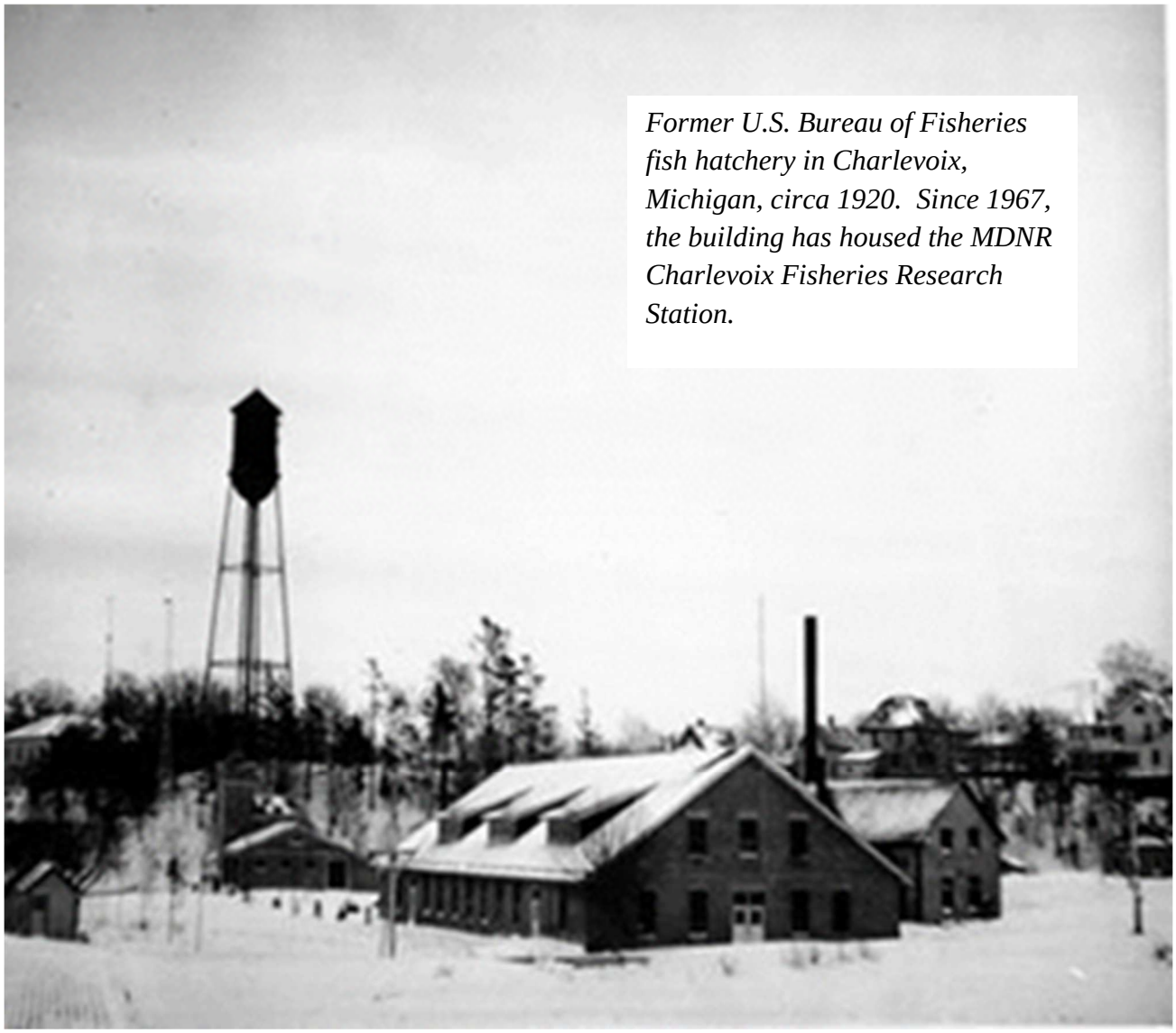
CHARLEVOIX FISHERIES RESEARCH STATION
2017 FIELD SEASON NEWSLETTER



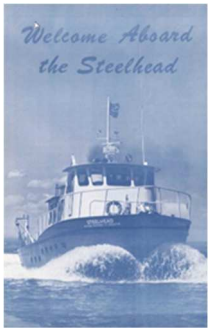
Former U.S. Bureau of Fisheries fish hatchery in Charlevoix, Michigan, circa 1920. Since 1967, the building has housed the MDNR Charlevoix Fisheries Research Station.

The new year marks a time to make resolutions for the future, as well as to reflect back on past accomplishments. With the close of 2017 and the start of a new year, MDNR Fisheries Division staff in Charlevoix are celebrating 50 years as a Great Lakes research station, and reflecting back on the people who've worked here, the great work that's been done, and the difference we've been able to make in management of the greatest freshwater system on earth.

The building that houses the Charlevoix Fisheries Research Station was constructed by the U.S. Bureau of Fisheries in 1918 *"to handle propagation of commercial fish for the Michigan Section."* With the construction of the federal Jordan River Hatchery, the Charlevoix building was declared surplus and was transferred to the

Michigan Department of Conservation in 1967. That same year, construction of the S/V *Steelhead* was nearing completion at T. D. Vinette Company shipyards in Escanaba, Michigan.

On May 2nd we'll celebrate 50 years since the dedication of our facility as a Great Lakes research station. 1968 was also the first year of fisheries assessment operations for the S/V *Steelhead*. This first year of operations is documented in an amazing book titled "*The Salmon Hunters*", written and illustrated by the first captain of the *Steelhead*, William J. Palmer.

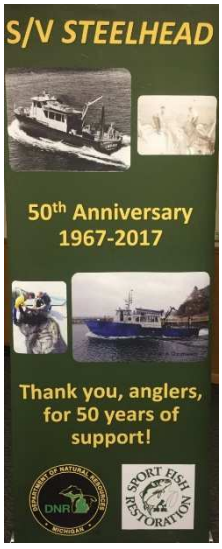


At the Midwest Fish and Wildlife conference in 2016, we recognized notable Michigan fisheries professionals at a special symposium, "Legends and Legacies: Michigan's Fishery Research and Management." Many of those professionals left their mark in Charlevoix…people like Myrl Keller, Richard Schorfhaar, and Jan Fenske, to name just a few. As a result of the great dedication and vision of the early staff of the Charlevoix, Alpena, Marquette, and Lake St. Clair MDNR research stations, we now have a standardized Great Lakes fisheries program that rivals any freshwater assessment program in North America. Our vessel crews are well-trained, highly skilled, and hard working. Our biologists are widely recognized for their scientific knowledge, their collaborative abilities, and their strong awareness of the importance of these amazing fisheries to the public. Our Great Lakes stations and vessels are truly the foundation of Great Lakes fisheries management, and we're looking forward with anticipation to what the next 50 years will bring!

Charlevoix Boy Scout Troop 11 and Charlevoix High School marching band prepare to raise the flag over the new Michigan Department of Conservation research station in Charlevoix, May 1968.

LARGE VESSEL ACTIVITIES

The 2017 season started great with the celebration of the vessels 50 years of service. Unfortunately, the celebration was short lived. Like many of us that reach the age of 50, the aches and pains of everyday life seem overwhelming at times. Besides struggling with mother nature during the spring season, things went well. We had a short-term worker fill the vacant Fisheries Assistant position and his youthful enthusiasm seemed to help overshadow his limited experience on a large vessel. Spring / early summer surveys went well (see "LWAP"), but then the birthday celebration was over, and the long list of struggles began. It started with the transducer (which is the life blood of our hydro-acoustic survey, otherwise known as our prey population survey) not working. Fortunately, the Alpena Fisheries Research Station came to the rescue and loaned us their new transducer to conduct the survey. Through the survey we dealt with leaky fuel pumps on both main engines, a shredded water impeller on the starboard engine, loss of generator power due to



overheating, loss of 12-volt power due to a broken alternator cable, and a broken hydraulic motor on our winch which led to the cable breaking and loss of the associated gear. The nail in the coffin was the loss of our hydraulic clutch, which is essential for net retrieval during all of our fisheries assessments. With that string of birthday luck, we had to cancel our nearshore fish community bottom trawling and fall Lake Trout spawner surveys.

S/V Steelhead

Lake-wide Assessment Plan (LWAP): Each spring the CFRS vessel *S/V Steelhead* conducts a survey of the Lake Michigan fish community. The main goal is to determine relative abundance of Lake Trout, Lake Whitefish, Burbot, and Yellow Perch. Fish are collected from 8 locations using bottom gill nets (8,000 feet per day) set in depths from 30 to 150 feet.

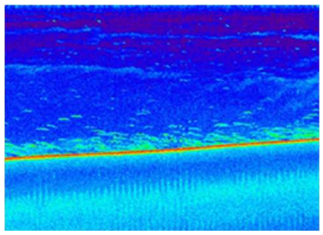
The Lake Trout data collected from this survey is used in complex models that allow biologists and managers to carefully monitor changes in populations throughout the lake. These models are also used to set harvest limits for state recreational fishers and tribal commercial fishers as well as evaluate regulations and stocking strategies.

In 2017, 128,000 feet of gill net was lifted. A total of 987 Lake Trout were collected (down 11% from 2016); out of that sample, 587 fish were coded-wire tagged. Lake Whitefish total catch was down significantly (57%; total catch of 252); however, there were a few less net sets in the southern part of the lake where Lake Whitefish are typically most abundant. The yellow perch catch was up significantly, from 321 perch in 2016 to 1,722 in 2017.

Kris holding up a nice Lake Michigan yellow perch.

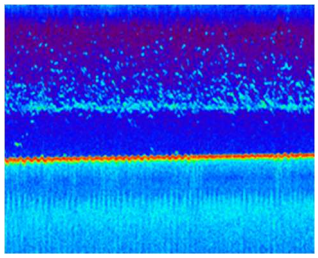
Captain Jerry working on some extra full nets

Acoustic Survey: The acoustic survey was conducted again in August in collaboration with the U.S. Geological Survey, U.S. Fish & Wildlife Service, and Little Traverse Bay Band of Odawa Indians. This survey continues to be one of the most important surveys we conduct, as the data collected are crucial to managers' decisions concerning predator/prey balance in Lake Michigan. The 2017 acoustic survey was completed as planned (28 transects, 442 transect miles and 40 midwater trawls completed lake-wide) by the research vessels *Sturgeon* (USGS), *Baird* (USFWS), *Meshenahma* (LTBBOI), and



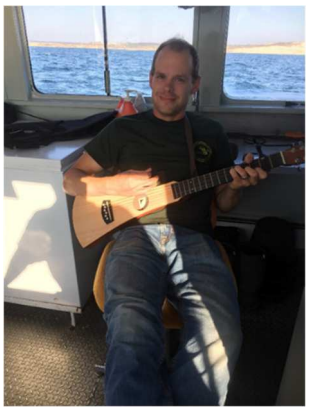
Aggregation of Bloater suspended off the bottom near Frankfort, MI

Steelhead (MI DNR). This sampling effort was similar to that occurring in previous years. Michigan DNR completed 11 of the 28 acoustic transects from



Aggregation of Alewife and Bloater adjacent to the thermocline near South Haven, MI

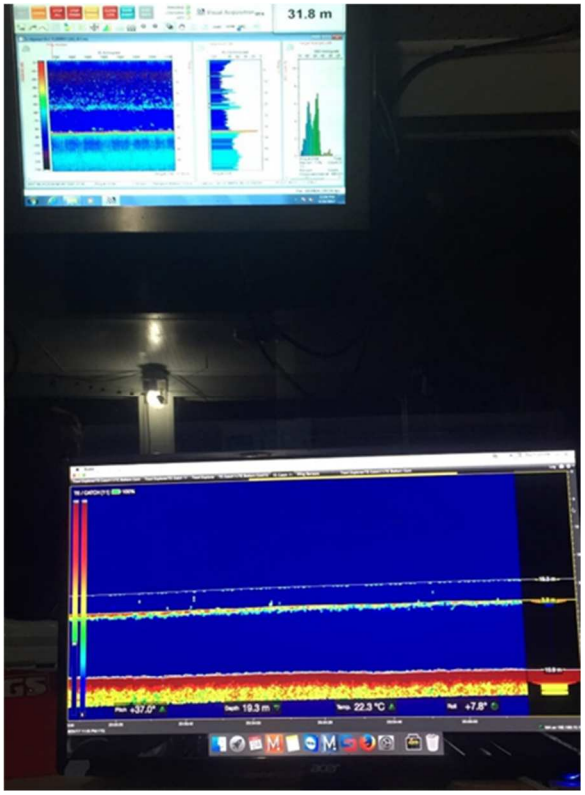
St. Joseph to Grand Traverse Bay. In addition to acoustic data collection, we also sampled prey fish with mid-water trawls and mysids with vertically towed plankton nets. The 2017 survey showed lake wide Alewife abundance to be near the historical low (4.4 kg/ha) with most Alewife patchily distributed in a relatively narrow band of nearshore water especially toward southern ports. Despite continued low



Down time for our new biologist Ben Turschak after a long night of sampling.

Alewife abundance, Adult Bloater (chubs) biomass (2.2 kg/ha) increased particularly in eastern Lake Michigan and is likely evidence of recruitment of small fish seen in recent years. Likewise, Rainbow Smelt biomass (1.0 kg/ha) also exhibited moderate increases in 2017 especially in the northeastern Lake Michigan basin. Other, non-target species were generally encountered with very low frequency, though some Yellow Perch and Lake Whitefish were captured at southern ports, and Cisco were captured in Grand Traverse Bay.

This year we were able to borrow a net monitoring system (Marport) that allowed us to track precisely where our midwater trawl was fishing in the water column. This facilitated real time precision targeting of fish aggregations that we observed with our acoustics. It also allowed us to monitor trawl performance as well as perform on-the-fly



Bottom: Paired use of hydroacoustics (top) and midwater trawl net monitoring system (bottom) onboard the SV Steelhead during the 2017 acoustic survey.

adjustments to net depth and boat speed which

greatly improved our fish capture efficiency. We are eagerly anticipating the purchase of this system for use in future lake wide acoustic surveys.

For more information regarding the work performed aboard the *S/V Steelhead* or any other MDNR research vessel, please click on the buttons below.

2017 Vessel Program Newsletter

Vessel Program Fact Sheet

CODED WIRE TAG PROGRAM

The objectives of the statewide fish marking program are…

- …to coded-wire tag and adipose fin clip experimental lots of fish at state fish hatcheries;
- …to design, develop, and manage databases for research studies that use coded-wire tags and other identifying marks;
- …and to coordinate activities conducted in Michigan related to the Great Lakes-wide Mass Marking initiative (a USFWS program to assist states in marking of hatchery-produced trout and salmon for Great Lakes stocking).

In 2017, Approximately 334,000 Chinook Salmon, 62,000 Rainbow Trout, 150,000 Atlantic Salmon, and 550 Lake Sturgeon were marked with a coded-wire tag (CWT) and adipose fin clip. Marked and unmarked Atlantic Salmon, Brown Trout, Chinook Salmon, Coho Salmon, Lake Trout, and Rainbow Trout were sampled from index surveys, sport fisheries, tribal fisheries, weirs, and fish ladders. Chinook Salmon (N=3,070), Rainbow Trout (N=267 fish) and Lake Trout (N=3,673) accounted for the majority of the 7,341 fish collected for CWT processing.

Coded-wire tagging lake sturgeon at Wolf Lake State Fish Hatchery

DNR staff asks for your continued support in the collection of trout and salmon head samples from tagged fish. CWT head drop sites, data results, and other information are available on the MDNR internet site at the following link:

Coded Wire Tag Program

CHARTER BOAT SURVEY

The objective of the state-wide Charter Boat Program is to obtain a continuous annual record of charter boat fishing effort, catch, and catch rates of the major sport fish in the Michigan waters of the Great Lakes.

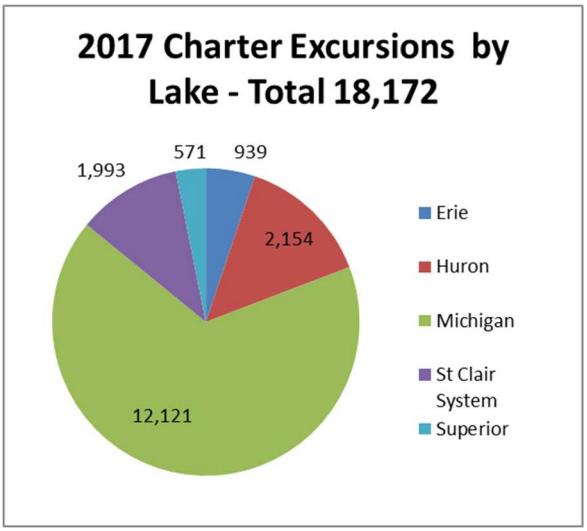
Charter businesses operated an average of 625 fishing boats in 2017; 60 charter businesses chartered with more than one boat. The charter captains reported 18,172 charter fishing trips in 2017, 800 more trips than in 2016. The number of charters trips per lake was similar to that in 2016. 67% of the charters were in Lake Michigan, 14% in Lake Huron, 11% in the St. Clair System, 5% in Lake Erie, and 3% in Lake Superior. The number of hours fished by charter anglers (400,390) was an increase of 7,800 when compared to angler hours fished in 2016.

The total of all fish species reported caught during charter trips in State of

Michigan Great Lakes and select tributary waters was 292,000, which is up by 48,000 compared to 2016 (and up by 86,000 compared to 2015!). The vast majority of that increase came from increased Walleye, Yellow Perch, and Coho Salmon catch. Lake Trout was the most prevalent fish harvested (55,400) making up 25% of the total charter fishing harvest. Walleye and Yellow Perch harvest continued to increase in 2017, making up 24% (51,500 fish) and 23% (50,700 fish) of the total harvest, respectively. Coho salmon harvest (23,000 fish) was 11% of the total, and 2-1/2 times the harvest in 2016 (9,000 fish). Chinook salmon harvest was 12% (25,300) fish, an increase of 3,000 fish in comparison to 2016. Rainbow trout (steelhead) harvest was 3% (6,900 fish) and brown trout harvest was less than 1% (370 fish).

Detailed charter fishing results from previous years are available at the following site:

Charter Boat Survey Program



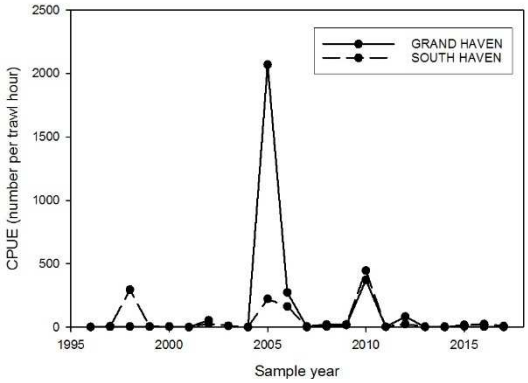
SMALL VESSEL ACTIVITIES

Northern Lake Michigan reefs: In the Great Lakes, the Rusty Crayfish is the most widespread crayfish species and it is continuing to spread at a rapid rate, especially in Lakes Michigan and Huron. Their diet includes Lake Trout eggs and their presence throughout the lakes corresponds to an overall lower total fish biomass. In an effort to determine effective Rusty Crayfish suppression methods, the Charlevoix DNR is working with The Nature Conservancy (TNC) and Central Michigan University (CMU) to test strategies on a reef in Little Traverse Bay known as "The Crib." Two methods will be employed; the first is the placement of a temporary barrier fence around the reef and the second method is to remove the crayfish altogether using modified traps that will be checked consistently throughout the spawning season. To determine the success of the project, CFRS crews will place egg bags on the reef in an effort to measure the quantity of natural eggs deposited during the spawning period. In addition, marked eggs and beads which mimic eggs will be seeded to determine the success of the suppression efforts. This work will take place from early August through December in 2018 and 2019.

Small vessel crew sampling at Bay Harbor.

Small Boat Bottom Trawl: The bottom trawl survey is used to collect important near shore fish community information, with a primary focus on Yellow Perch recruitment. CFRS crews were only able to sample at two ports (South Haven and Grand Haven) in late summer 2017. Young-of-year Yellow Perch catch was way down, with average catch of about 8 fish per hour at South Haven and only 1 fish per hour at Grand Haven. The 2017 cohort can be classified as a weak year class of Yellow Perch…this was apparent throughout Lake Michigan (see also Lake Michigan interagency yellow perch report at…

Lake Michigan Committee Yellow Perch Report



Catch of young Yellow Perch was reduced in 2017, compared to peak years of 1998, 2005, and 2010.

OTHER ACTIVITES

Weir Harvest: The 2017 season began with a preseason meeting at the Platte River Hatchery on August 9th to cover details of the upcoming salmon egg take/harvest season. Then the season got off with a big run of Coho Salmon into the Platte River, with the first harvest on Sept 6. Again this year, American-Canadian processed the harvested salmon (for later wholesale and retail sales) at their facility located in Bear Lake Michigan. Charlevoix fisheries technician John Clevenger led the sampling crew at the Bear Lake facility. During the 2017 season, the sampling crew (with the assistance of Fisheries staff from Platte River hatchery and US Fish and Wildlife Bio-Technicians) was able to sample every fish from every date on which a harvest took place. This sampling required 14 trips to the Bear Lake facility (fish were also sampled on-site for one harvest at the Medusa Creek weir). A total of 1,723 Chinook Salmon and 3,251 Coho Salmon were sampled in 2017. Snouts from 1,328 adipose-clipped Chinook Salmon were collected for coded-wire tag analysis; 95.3% of those were found to have a tag.

The heaviest Chinook sampled in 2017 weighed 26.0 lbs and the longest was 43.1 inches. Both these fish came from the Little Manistee River. The heaviest Coho was 12.5 lbs and the longest was 30.9 inches. Both of these fish came from the Lower Platte River.

Weir Location	Chinook Salmon	Coho Salmon
Boardman River	1,907	10,514
Little Manistee R	1,694	0
Platte River	32	28,036
Medusa Creek	2,076	143
Swan River	4,600	75

Total harvest of Chinook Salmon and Coho Salmon at MDNR weirs in 2017.

Northern Lake Michigan Smallmouth Bass Study: Since 2006, CFRS staff have assisted the Central Lake Michigan Management unit and CMU in conducting a Smallmouth Bass

population and movement study in the waters around the Beaver Island Archipelago, Waugoshance Point, and Grand Traverse Bay.

At Waugoshance Point, overall our catch seemed to be down a bit in 2017. We had 16 net lifts and 2 net lifts that netted zero fish! Our total catch was only 132 bass, of which we tagged 92 new bass and collected 30 bass for a USGS contaminant study. Only 2 previously tagged bass were caught and both were previously tagged in the Waugoshance area. Large percentages of the bass captured were females and most were still green (pre spawn) which was expected as the water temperatures were only in the low 50's. The largest bass weighed in at 5.8 pounds, and the longest was measured at 19.5 inches. The next most frequently captured species was Common White Sucker (60) and we also captured (2) Walleye, (4) Northern Pike and (1) Atlantic Salmon (adipose-clipped).

It's not always easy getting the boat in and out at Waugoshance Point!

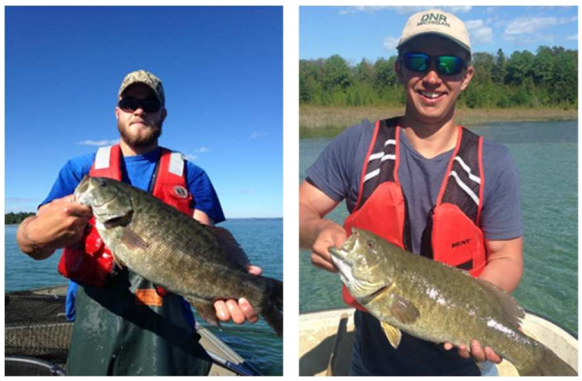
Two trips were made to sample bass around the Beaver Island Archipelago. During the first trip (June), we were able to set 6 nets around Garden Island and 1 net in Paradise Bay (St. James Harbor). With near perfect weather that week, we were able to fish every net each day for a total of 24 lifts. We captured a total of 356 Smallmouth Bass. Out of the 356, we tagged 209 new bass and had 52 recaptured fish, 35 of which no longer had a tag (lost or angler removed). Three of the recaptured tagged bass were tagged at Waugoshance Point and one was tagged in Grand Traverse Bay.

We also caught Bullheads (200), Northern Pike (92), Rock Bass (48), Common White Suckers (31), Yellow Perch (4), Walleye (2), Channel Catfish (2), Carp (1) and Longnose Sucker (1). The longest bass captured measured 21.0 inches and the heaviest weighed 5.8 pounds. We caught a total of 10 bass measuring longer than 19.7"; one 20.5" bass was found to have part of a floy tag remaining and had lost the jaw tag it was given. Floy tags were last used on SMB in the Beaver Island Archipelago in July 2006 so that would make this bass 11 years older than when it was first encountered and tagged!

During a second trip, in July, we set 7 trap nets in various bays in the archipelago. Weather prevented the crew from lifting all the nets except on the first day after being set. All the nets were pulled by Friday and the survey ended with a total of 21 lifts for 25 net nights. A total of 500 bass were captured, from which we tagged 247 new bass and recorded 63 recaptures. The largest bass captured was 20.2 inches long and was the only bass seen longer than 20" this trip. Over 35% (187) of the bass caught were less than 12" in length. Other species seen were Bullheads (745), Rock Bass (42), Northern Pike (18), Bowfin (4), Carp (3), Largemouth Bass (2), Common White Sucker (2), and Yellow Perch (1). Notably the Northern Pike population has increased significantly around

Garden Island over the past few years. These fish look very healthy with the largest fish measuring over 37 inches long!

In East Grand Traverse Bay (Elk Rapids to Acme), we had a total of 19 lifts. We captured a total of 468 Smallmouth Bass, tagging 370 new bass and only getting 7 recaptured fish. One of the recaptured bass was originally tagged near Beaver Island (Garden Island, Manitou Bay). The Largest bass caught weighed 6.1 pounds and measured 21.7 inches in length. Female bass seemed to make up a large portion of the catch with several losing eggs while being handled. We also caught Rock bass (67), Common

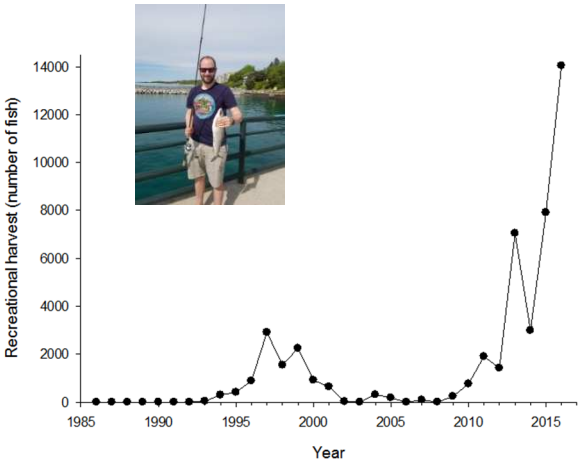


Summer workers Cole VanOosten and Matt Anderson with a couple of nice northern Michigan smallmouth bass.

White Suckers (64), Alewife (20), Bullhead (14), Walleye (9), Northern Pike (9), Carp (8), Greater Redhorse Sucker (4), Channel Catfish (1), Long Nose Gar (1) and Rainbow Trout (1).

Lake Whitefish Seine Survey: Each June staff from the Tribal Coordination Unit (TCU) and CFRS visit areas adjacent to Lake Whitefish spawning locations seeking to capture age-0 juvenile fish to confirm that reproduction was successful in the present year. This is a low-cost survey since it doesn't require a vessel to complete. Aside from the 150-foot seine net that is deployed from shore, this survey only requires some muscle and good luck to avoid taking a cold Lake Michigan wave over the top of your waders. In 2017, we sampled two sites in cooperation with staff from the Grand Traverse Band of Ottawa and Chippewa Indians (GTB). In both Elk Rapids and Leland, TCU and GTB sampled two sites simultaneously to increase our spatial coverage and evaluate variability in catch between the crews and locations. It turns out 2017 was a poor year for Lake Whitefish reproduction, as the only sampling site of the 9 that we visited that produced good numbers of juveniles was Charlevoix. There are now 12 agencies conducting these seine surveys, visiting sites throughout the Upper Great Lakes. We continue our progress towards better understanding the patterns and variability in Lake Whitefish recruitment.

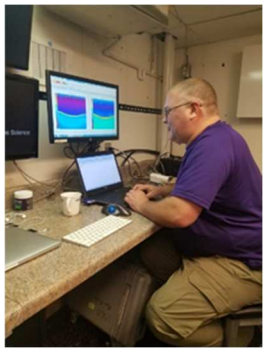
Cisco Research: In 2017, we continued to investigate the rapidly expanding Lake Michigan Cisco population. It's been exciting to watch as Cisco become an important component of the sport harvest in northern Lake Michigan and Grand Traverse Bay. Over 19,000 Cisco were harvested by anglers in 2017.



We continue to collaborate with researchers in a variety of fields to document the expansion and better understand the ecology and behaviors of these fish. Diet studies have indicated that in Lake Michigan, Cisco (which are typically considered prey fish) are actually behaving as top predators consuming alewife and round goby. Future work will further explore the foraging patterns and growth of Lake Michigan Cisco to better understand how they are able to capitalize on fish as prey and not simply invertebrates or zooplankton as most Cisco populations do.

Genetic and morphometric evaluations are being conducting to better understand the genome of Cisco and identify functional traits. This research will help us to better understand interactions with the environment, informing improved management of Cisco stocks.

Partnering with Little Traverse Bay Band of Odawa Indians, GTB and USGS, we are attempting to learn more about spawning behaviors of Cisco in Grand Traverse Bay. We have used a combination of methods which include hydroacoustics, gill netting, egg sampling with mats, vacuum pumps and egg collection bags. We have learned that some Cisco in Grand Traverse Bay spawn on reef habitat and this has been well documented. Reef spawning is not typical for Cisco so yet again they are proving to behave differently. We hadn't really explored the potential for open water or pelagic spawning which is more typical for Cisco. In 2017, we were able to document the presence of ripe and running individuals over deep water in Grand Traverse Bay with gill nets set at the surface and information determined in acoustic surveys. Eggs of Cisco were collected in deep water with a suction sampler near this location. Investigators from Cornell University collaborated in providing expertise and equipment to complete this work. Indications are that Cisco show diverse spawning preferences in Lake Michigan, perhaps contributing to their recent success.



Dr. Warner (USGS, Ann Arbor), searching for Cisco!

Diving Operations: Nine years ago, Michigan Fish Division took a big step in recognizing the need for diving in fisheries management. This was done by adopting a policy that allows for staff to continue research and management through diving activities. These tasks have been as simple as cleaning an intake screen off a walleye pond or mounting a transducer under a large vessel to tracking movements of the exotic Rusty Crayfish through a tagging study which require 30 plus dives.

Although Fish Division has divers located around the state, most of the diving activity has been centered in the Northwest Lower Peninsula, where spawning reefs have been the primary focus. Diving activities for 2017 started off slow but really ramped up as the year progressed. The season started by doing search and recovery dives for oxygen probes in Saginaw Bay that were lost due to ice scour. Unfortunately, the visibility was six inches or less which required the search to be conducted by feel; we were unable to recover this

equipment. Then in July, the Fisheries Division dive team joined forces with a large group of collaborators (led by Tip of the Mitt Watershed Council) in treating an entire inland lake for zebra mussel control. Our crew was tasked with a full week of indexing the native mussel assemblage before treatment began.

The dive team also collaborated on a reef project with researchers from the University of Wisconsin-Milwaukee and the National Park Service at Good Harbor Bay near Leland. The project required multiple dives throughout the year to deploy and recover scientific equipment, as well as monitoring the effects of dreissenid mussels and nuisance algae growth on the reef.

Servicing the scientific monitoring equipment at an experimental mussel removal site in Good Harbor Bay

As summer turned to fall, diving activities ramped up to the usual high level. We had lots of diving which involved burying egg nets and running predator consumption trials into late fall when the water temperature was hovering just above freezing…burr!

Education and Outreach: As is the case most years, CFRS staff were extremely active in public education and outreach activities during 2017. Following are a few examples…

- Presentations at Michigan SeaGrant fisheries workshops
- Participation in the Charlevoix Public Library "Lifelong Learning" program on Great Lakes issues
- Hosting students, press, and other members of the public for tours of the station and aboard the S/V *Steelhead*
- Attending and presenting at citizen advisory committee meetings for Lake Huron and Lake Michigan, as well as other stakeholder meetings (e.g., Freshwater Summit, State of Lake Michigan)
- Providing an overview of MDNR mission and activities to the "Leadership Charlevoix Academy"
- Speaking at various sportfishing and other organization meetings (e.g., Manistee County Sportfish Association, Michigan Charter Boat Association, Charlevoix Rotary Club)
- Assisting Charlevoix Elementary School students with their "Salmon in the Classroom"
- Presenting an aquatic ecology session at East Jordan Middle School's "Camp Willy"
- Demonstrating aquatic invertebrate sampling and identification for the Lake Charlevoix Association "Experience Lake Charlevoix" event

- Hosting the Great Lakes Leadership Academy, in collaboration with Tracy Claramunt and Jason Smith (LTBB)
- Organizing and presenting 3-day kids fishing clinics in cooperation with the Charlevoix Public Library (June) and Elk Rapids Public Library (August)

- Hosting annual meetings of both the GLFT Scientific Advisory Team and the GLFT Board
- Conducting tours of the Medusa Weir for 3rd grade students from Charlevoix Elementary and high school students from Mancelona
- Assisting the Charlevoix Elementary School FLL Robotics team in developing project ideas for the HYDRODYNAMICS challenge…finding ways to improve the ways that humans find, transport, use, and dispose of water
- Presenting on "Technology and the DNR" to the Petoskey High School robotics conference
- Appearing in videos at NatureChange (http://naturechange.org/), highlighting recent changes to Lake Michigan and Great Lakes ecosystems

In addition, several employees and partners were recognized in 2017 for outstanding work:

- **Donna Wesander, Patrick Hanchin, and Dave Caroffino** were recognized with the Fisheries Division's *Tanner and Tody Award* for their significant

efforts in overhauling our charter, commercial and wholesale data collection systems as part of the Lean Process Improvement team.

- **Dave Caroffino** was recognized with the Fisheries Division's *Dedication to Excellence* award for his work in preparing the Division for renewal of the Great Lakes Consent Decree, and for his efforts on numerous Division and Department committees.
- **Jeff Stevens** was recognized with the Fisheries Division's *Dedication to Excellence* award for his contributions to successful research station, fish production, and CLMMU operations during his 30+ year career at the CFRS.
- **The staff of the Charlevoix Public Library** were recognized with the Division's *Outstanding Partnership* award for having devoted significant time and energy over the past 5+ years to bringing messages concerning

aquatics, fisheries, and Great Lakes issues to the public.

- MDNR Law Enforcement Division staff were recognized with the Division's *Outstanding Partnership* award for their great work in promoting timely reporting of charter excursions, so that Fisheries Division has the data necessary for successful fisheries management.

Congratulations to everyone for these well-deserved awards!

CHARLEVOIX FISHERIES RESEARCH STATION STAFF:

Dave Caroffino, Tribal Unit Biologist

David Clapp, Research Station Manager

John Clevenger, Fisheries Technician Specialist

Eric Crissman, Tribal Unit Technician

Patrick Hanchin, Tribal Unit Manager

Jory Jonas, Research Biologist

Kendra Kozlauskos, Fisheries Assistant

Patrick O'Neill, Assistant Boat Captain

Rebecca Parker, State Worker

Jerry Ranville, Boat Captain

Kris Snyder, Fisheries Technician

Jeff Stevens, Trades Helper

Cathy Sullivan, Station Administration

Ben Turschak, Research Biologist

Donna Wesander, Fisheries Technician Specialist

[Vacant], Fisheries Assistant (Vessel)

State Workers and Interns (2017):

- *Matt Anderson (CWT program)*
- *Bonnie Hamilton, Erin Prior, Kyle Urban, Helen Watrous (TNC reef project)*
- *John Milan (S/V Steelhead),*
- *Cole VanOosten (Tribal Coordination Unit)*

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